



September 27, 2021
ACO 21-0048

ATTN: Document Control Desk
Mr. John W. Lubinski, Director
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

American Centrifuge Plant; Docket Number 70-7004; License Number SNM-2011

Request for Early Authorization to Introduce Radioactive Source Material into American Centrifuge Operating, LLC's High-Assay Low-Enriched Uranium (HALEU) Demonstration Program

INFORMATION TRANSMITTED HERewith IS PROTECTED FROM PUBLIC DISCLOSURE AS CONFIDENTIAL COMMERCIAL OR FINANCIAL INFORMATION AND/OR TRADE SECRETS PURSUANT TO 10 CFR 2.390

Dear Mr. Lubinski:

The purpose of this letter is to request U.S. Nuclear Regulatory Commission (NRC) approval to introduce radioactive sources into American Centrifuge Operating, LLC's (ACO) High-Assay Low-Enriched Uranium (HALEU) Demonstration cascade. This authorization supports full operability testing of the Criticality Accident Alarm System (CAAS) needed to support the final implementation efforts of the Nuclear Criticality Safety program as described in our approved license application and supporting documents.

As required under NRC Materials License (SNM-2011) Condition 11, NRC Region II performed the necessary operational readiness reviews to support this authorization to introduce radioactive sources. The program inspection occurred during the week of July 26, 2021 and the final implementation inspection occurred on September 21, 2021 in Piketon, Ohio. Additionally, as required within Condition 11, the required 120-day advance notification of ACO's plan to introduce uranium hexafluoride into any module of the facility occurred on July 8, 2021 (Reference 1).

Enclosure 1 provides the specific radioactive source information being sought for approval. These radioactive sources are adequately covered under Amendment 13 of our Materials License (SNM-2011). Enclosure 1 contains Security-Related Information; therefore, ACO requests this enclosure be withheld from public disclosure pursuant to 10 *Code of Federal Regulations* (CFR) 2.390(d)(1).

~~Document/matter transmitted contains Security-Related Information- Withhold Under 10 CFR 2.390~~
When separated from enclosure, this cover letter is uncontrolled.

Mr. John W. Lubinski
September 27, 2021
ACO 21-0048, Page 2

After the NRC staff has had an opportunity to review Enclosure 1 and receives the Region II final operational readiness inspection report for the Radiation Protection program, ACO is available to support a discussion to address any questions or clarify issues to support the final authorization for the introduction of radioactive source material by November 5, 2021.

If you have any questions regarding this matter, please contact me at (740) 897-4564 or Kelly Fitch at (740) 897-3859.

Sincerely,



Mathew D. Snider
Enrichment Operations Plant Manager

Enclosure: As stated

Reference:

1. ACO 21-0035 from M. Snider to J.W. Lubinski (NRC) regarding Advanced notice of American Centrifuge Operating, LLC's intent to introduce UF₆ in the High-Assay Low-Enriched Uranium (HALEU) Demonstration cascade, dated July 8, 2021

cc (without enclosure, unless otherwise noted):

Y. Faraz, NRC HQ (Enclosure)
S. Harlow, DOE-NE
J. Hutson, Contract Support (Enclosure)
N. Pitoniak, NRC Region II (Enclosure)
L. Pitts, NRC Region II (Enclosure)
K. Shears, DOE-NE
E. St. Clair, DOE Contract Support
J. Tobin, NRC HQ (Enclosure)
R. Womack, NRC Region II (Enclosure)
T. Vukovinsky, NRC Region II (Enclosure)